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<input type="checkbox"/>	L3	l1 and (@ad<20020130 or @pd<20020130)	38
<input type="checkbox"/>	L2	L1 and e137	1
<input type="checkbox"/>	L1	neutraliz\$ near4 (antibod\$ or immunoglob\$) same (HCV or hepatitis adj C) with E2	77

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#18 Search #16 AND #9 Field: Title/Abstract	09:20:01	41
#17 Search #16 AND #11 Field: Title/Abstract	09:18:23	146
#16 Related Articles for PubMed (Select 16250048)	09:18:06	284
#11 Related Articles for PubMed (Select 16501075)	09:18:00	601
#9 Search #8 AND (HCV[ti] or "hepatitis C"[ti]) Field: Title/Abstract	09:02:24	103
#8 Related Articles for PubMed (Select 12323399)	08:40:51	225
#6 Search (HCV[ti] or "hepatitis C"[ti]) AND (Fab or antibod\$ or immunoglob\$) Field: Title/Abstract	08:40:22	14
#5 Search (HCV[ti] or "hepatitis C"[ti]) AND (therap\$ or treat\$ or (passive AND vaccin\$)) Field: Title/Abstract	08:39:52	457
#4 Search (HCV or "hepatitis C") AND (therap\$ or treat\$ or (passive AND vaccin\$)) Field: Title/Abstract	08:39:41	620
#3 Search (HCV or "hepatitis C") AND (therap\$ or treat\$ or (passive AND vaccin\$))	08:39:29	15386
#1 Search (HCV or "hepatitis C") AND (therap\$ or treat\$) AND (immunoglob\$ or antibod\$ or (passive AND vaccin\$))	08:38:55	14

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Feb 21 2007 18:14:20

BLASTP 2.2.15 [Oct-15-2006]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

Reference:

Schäffer, Alejandro A., L. Aravind, Thomas L. Madden, Sergei Shavirin, John L. Spouge, Yuri I. Wolf, Eugene V. Koonin, and Stephen F. Altschul (2001), "Improving the accuracy of PSI-BLAST protein database searches with composition-based statistics and other refinements", Nucleic Acids Res. 29:2994-3005.

RID: 1172616815-29106-99909479111.BLASTQ3

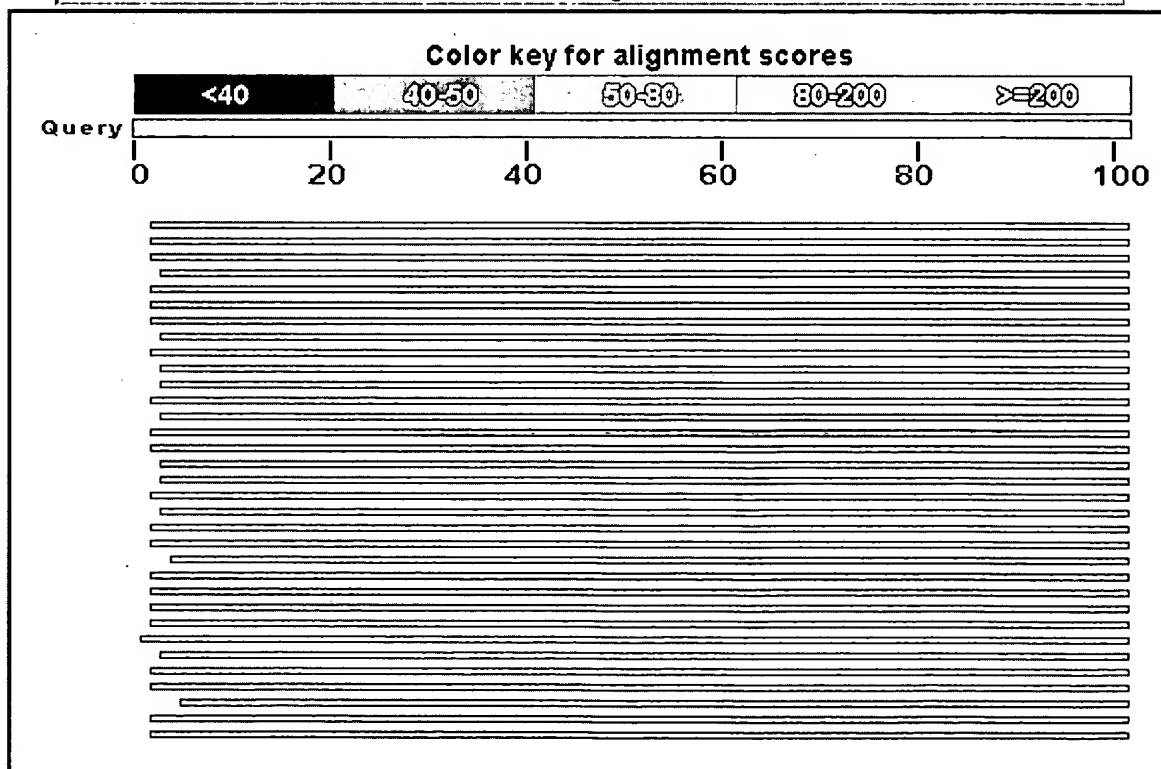
Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples
4,657,147 sequences; 1,607,774,624 total letters

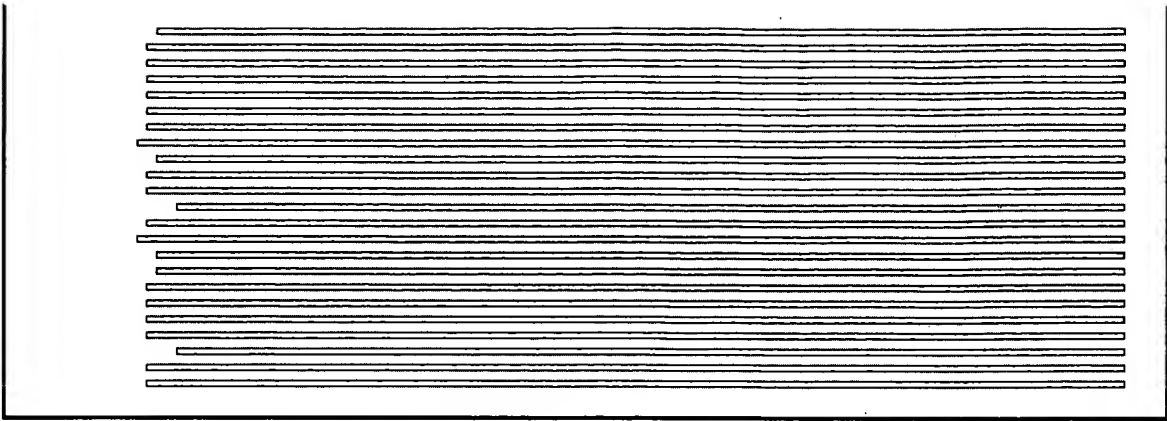
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Query= *SEQ ID NO: 8*
Length=102

Distribution of 101 Blast Hits on the Query Sequence

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Distance tree of results ^{NEW} Related Structures

Sequences producing significant alignments:		Score (Bits)	E Value	
gi|1265526|emb|CAC27614.1|	immunoglobulin kappa chain variable	169	5e-41	
gi|21707884|gb|AAH34141.1|	IGKC protein [Homo sapiens]	167	2e-40	UG
gi|542883|pir||S40336	Ig kappa chain V-J region - human >gi|4...	166	3e-40	
gi|21669487|dbj|BAC01768.1|	immunoglobulin kappa light chain VLJ	166	4e-40	U
gi|481992|pir||S40334	Ig kappa chain - human	166	5e-40	
gi|441357|emb|CAA51112.1|	Ig kappa light chain (VJC) [Homo sapie	165	5e-40	U
gi|41388184|gb|AAS01771.1|	monoclonal IgM antibody light chain {	165	6e-40	U
gi|4063659|gb|AAC98364.1|	scFV antibody V-region [synthetic cons	164	9e-40	
gi|58202720|gb|AAW67411.1|	rotavirus-specific intestinal-homi...	164	9e-40	U
gi|5690400|gb|AAD47068.1|AF163306_1	anti-HLA-A2/A28 immunoglo...	164	1e-39	U
gi|4063657|gb|AAC98363.1|	scFV antibody V-region [synthetic cons	164	2e-39	
gi|77378175|gb|ABA70812.1|	immunoglobulin kappa light chain vari	164	2e-39	
gi|13171340|gb|AAK13632.1|AF234256_1	immunoglobulin light chain	163	3e-39	U
gi|5360679|dbj|BAA82105.1|	anti-Entamoeba histolytica immunog...	163	3e-39	U
gi|114385548|gb|ABI74032.1|	immunoglobulin light chain variable	163	3e-39	
gi|51103393|gb|AAT96422.1|	immunoglobulin variable region VL kap	163	3e-39	U
gi|5081721|gb|AAD39506.1|AF146408_1	antibody light chain variabl	163	3e-39	U
gi|49257007|gb|AAH73791.1|	IGKC protein [Homo sapiens]	162	3e-39	UG
gi|21669353|dbj|BAC01701.1|	immunoglobulin kappa light chain VLJ	162	3e-39	U
gi|567146|gb|AAA52924.1|	immunoglobulin gamma-chain, V region [H	162	4e-39	U
gi|7012707|gb|AAF35179.1|	immunoglobulin light chain variable re	162	5e-39	U
gi|306993|gb|AAA20164.1|	immunoglobulin light chain	162	6e-39	
gi|45501244|gb|AAH67226.1|	IGKC protein [Homo sapiens]	162	6e-39	UG
gi|63102969|gb|AAY33390.1|	anti-rabies virus immunoglobulin l...	162	6e-39	U
gi|11275318|dbj|BAB18259.1|	anti HBs antibody light-chain Fab fr	161	8e-39	U
gi|4063661|gb|AAC98365.1|	scFV antibody V-region [synthetic cons	161	8e-39	
gi|3046470|gb|AAC13450.1|	anti-Rh(D) antibody V kappa segment [s	161	8e-39	
gi|70798869|gb|AAZ09144.1|	immunoglobulin kappa light chain vari	161	9e-39	U
gi|63103079|gb|AAY33445.1|	anti-rabies virus immunoglobulin l...	161	1e-38	U
gi|542905|pir||S40318	Ig kappa chain V region - human >gi|441...	161	1e-38	
gi|18307264|gb|AAL65703.1|	immunoglobulin light chain kappa vari	160	1e-38	
gi|12655530|emb|CAC27616.1|	immunoglobulin kappa chain variable	160	1e-38	
gi|732746|emb|CAA84391.1|	antibody, light chain variable regi...	160	1e-38	
gi|4063667|gb|AAC98368.1|	scFV antibody V-region [synthetic cons	160	1e-38	
gi|3644022|gb|AAC43029.1|	anti-mucin1 light chain variable regio	160	2e-38	U
gi|12655532|emb|CAC27617.1|	immunoglobulin kappa chain variable	160	2e-38	
gi|5081723|gb|AAD39507.1|AF146409_1	antibody light chain variabl	160	2e-38	U

gi|93278678|pdb|2AJ3|A	Chain A, Crystal Structure Of.A Cross-...	160	2e-38	S
gi|47109384|emb|CAG28673.1|	anti-PLAP ScFv antibody [synthetic c	160	2e-38	
gi|63103033|gb|AAV33422.1|	anti-rabies virus immunoglobulin l...	160	2e-38	C
gi|1514581|emb|CAA65058.1|	immunoglobulin kappa light chain [syn	160	2e-38	C
gi|84797980|gb|ABC66939.1|	immunoglobulin light chain variabl...	160	2e-38	C
gi|21669293|dbj|BAC01671.1|	immunoglobulin kappa light chain VLJ	160	3e-38	C
gi|5731263|gb|AAD48839.1|	single-chain Fv antibody SR19 [synthet	159	3e-38	
gi|58032607|gb|AAW63086.1|	anti-pneumococcal antibody 54B11 ligh	159	3e-38	
gi|12655528|emb|CAC27615.1|	immunoglobulin kappa chain variable	159	3e-38	
gi|33355929|gb|AAQ16318.1|	anti-human kappa light chain antib...	159	4e-38	
gi|29725718|gb|AAO91639.1|	anti-HLA-A2/A28 immunoglobulin lig...	159	4e-38	C
gi|58222496|gb|AAW68880.1|	anti-tetanus toxoid immunoglobulin...	159	4e-38	C
gi|13171342|gb|AAK13633.1|	AF234257_1 immunoglobulin light chain	159	4e-38	C
gi|49256425|gb|AAH73764.1|	IGKC protein [Homo sapiens]	159	4e-38	C
gi|21669307|dbj|BAC01678.1|	immunoglobulin kappa light chain VLJ	159	4e-38	C
gi|567150|gb|AAA52928.1|	immunoglobulin gamma-chain, V region [H	159	5e-38	C
gi|4378190|gb|AAD19430.1|	immunoglobulin kappa light chain varia	159	5e-38	C
gi|186009|gb|AAA62364.1|	immunoglobulin kappa-chain VK-1 [Homo s	159	5e-38	C
gi|63101938|gb|AAH95489.1|	IGKC protein [Homo sapiens]	159	6e-38	C
gi|4323882|gb|AAD16580.1|	immunoglobulin kappa light chain varia	159	6e-38	C
gi|55700563|emb|CAH69219.1|	anti-human-CD3-anti-human-HMWG.bi...	159	6e-38	C
gi|21669363|dbj|BAC01706.1|	immunoglobulin kappa light chain VLJ	159	6e-38	C
gi|18092610|gb|AAL59374.1|	anti-cardiolipin immunoglobulin light	159	6e-38	C
gi|114385751|gb|ABI74133.1|	immunoglobulin light chain variable	158	6e-38	C
gi|77378173|gb|ABA70811.1|	immunoglobulin kappa light chain vari	158	6e-38	C
gi|98956308|emb|CAI99792.1|	immunoglobulin kappa light chain var	158	7e-38	C
gi|70798711|gb|AAZ09065.1|	immunoglobulin kappa light chain vari	158	7e-38	C
gi|21669297|dbj|BAC01673.1|	immunoglobulin kappa light chain VLJ	158	7e-38	C
gi|58222457|gb|AAW68862.1|	anti-tetanus toxoid immunoglobulin...	158	7e-38	C
gi|21998807|emb|CAD43015.1|	immunoglobulin kappa chain variable	158	7e-38	C
gi|41388186|gb|AAS01772.1|	monoclonal IgM antibody light chain [	[158	7e-38	C
gi|109693151|gb|ABG38368.1|	immunoglobulin light chain variable	158	8e-38	C
gi|114385626|gb|ABI74071.1|	immunoglobulin light chain variable	158	8e-38	C
gi|542900|pir|S40352	Ig kappa chain V-J-C region - human >gi...	158	9e-38	C
gi|186006|gb|AAA58934.1|	Ig kappa V-region d	158	9e-38	C
gi|70798670|gb|AAZ09045.1|	immunoglobulin kappa light chain vari	157	1e-37	C
gi|4379022|emb|CAA77300.1|	kappa immunoglobulin (subgroup V kapp	157	1e-37	C
gi|109240734|emb|CAJ13477.1|	immunoglobulin kappa chain variable	157	1e-37	C
gi|6179862|gb|AAF05688.1|	anti-phospholipid immunoglobulin li...	157	1e-37	C
gi|14573217|gb|AAK67997.1|	immunoglobulin light chain variable r	157	1e-37	C
gi|63103119|gb|AAV33465.1|	anti-rabies virus immunoglobulin l...	157	1e-37	C
gi|109693101|gb|ABG38344.1|	immunoglobulin light chain variable	157	1e-37	C
gi|84798214|gb|ABC67056.1|	immunoglobulin light chain variabl...	157	2e-37	C
gi|5731265|gb|AAD48840.1|	single-chain Fv antibody VE91 [synthet	157	2e-37	C
gi|18025630|gb|AAK94824.1|	immunoglobulin light chain variable r	157	2e-37	C
gi|63103035|gb|AAV33423.1|	anti-rabies virus immunoglobulin l...	157	2e-37	C
gi|4063665|gb|AAC98367.1|	scFV antibody V-region [synthetic cons	157	2e-37	C
gi|6179868|gb|AAF05691.1|	anti-phospholipid immunoglobulin li...	157	2e-37	C
gi|14588867|emb|CAC43029.1|	immunoglobulin light chain variable	157	2e-37	C
gi|58202724|gb|AAW67413.1|	rotavirus-specific intestinal-homi...	157	2e-37	C
gi|12655492|emb|CAC27598.1|	immunoglobulin kappa chain variable	157	2e-37	C
gi|33235610|dbj|BAC80161.1|	immunoglobulin kappa light chain [Ho	157	2e-37	C
gi|58222492|gb|AAW68878.1|	anti-tetanus toxoid immunoglobulin...	157	2e-37	C
gi|63103087|gb|AAV33449.1|	anti-rabies virus immunoglobulin l...	157	2e-37	C

gi|462009|pir||S40369	Ig kappa chain - human	>gi|441427|emb|C...	156	2e-37	U U U U U U
gi|75707211|gb|ABA26069.1|	immunoglobulin light chain variable r		156	2e-37	
gi|63102911|gb|AAV33361.1|	anti-rabies virus immunoglobulin l...		156	2e-37	
gi|21669365|dbj|BAC01707.1|	immunoglobulin kappa light chain VLJ		156	3e-37	
gi|11275310|dbj|BAB18255.1|	anti TNF-alpha antibody light-chain		156	3e-37	
gi|109693166|gb|ABG38375.1|	immunoglobulin light chain variab...		156	3e-37	
gi|106669|pir||S19674	Ig kappa chain V region (clone alpha-TE...		156	3e-37	
gi|114385660|gb|ABI74088.1|	immunoglobulin light chain variable		156	3e-37	
gi|90823197|gb|ABE01099.1|	anti-Rhesus D-specific antibody li...		156	3e-37	

Alignments

> ☐ gi|12655526|emb|CAC27614.1| immunoglobulin kappa chain variable region [Homo sapiens]
Length=106

Score = 169 bits (427), Expect = 5e-41, Method: Composition-based stats.
Identities = 93/100 (93%), Positives = 97/100 (97%), Gaps = 0/100 (0%)

Query	3	ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAAS	62
		+LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAAS	
Sbjct	2	QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAAS	61
Query	63	SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT	102
		SGSGS TEFTLTIT+ LQPEDFATYYCQ LN+YPWTFGQGT	
Sbjct	62	SGSGSGTEFTLTINSLQPEDFATYYCQQLNSYPWTFGQGT	101

> ☐ gi|21707884|gb|AAH34141.1| **UG** IGKC protein [Homo sapiens]
Length=236

Score = 167 bits (422), Expect = 2e-40, Method: Composition-based stats.
Identities = 90/100 (90%), Positives = 93/100 (93%), Gaps = 0/100 (0%)

Query	3	ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAAS	62
		+LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAP LLIYAAS	
Sbjct	25	QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPNLLIYAAS	84
Query	63	SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT	102
		SGSGS TEFTLTIS LQPEDFATYYCQ LN+ P TFG GT	
Sbjct	85	SGSGSGTEFTLTISLQPEDFATYYCQQLNSSPPTFGGGT	124

> ☐ gi|542883|pir||S40336 Ig kappa chain V-J region - human
gi|441361|emb|CAA51114.1| **U** Ig kappa light chain (VJ) [Homo sapiens]
Length=124

Score = 166 bits (420), Expect = 3e-40, Method: Composition-based stats.
Identities = 94/101 (93%), Positives = 97/101 (96%), Gaps = 1/101 (0%)

Query	3	ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAAS	62
		+LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAAS	
Sbjct	18	QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAAS	77
Query	63	SGSGSWTEFTLTISRLQPEDFATYYCQHLNTY-PWTFGQGT	102
		SGSGS TEF+LTIS LQPEDFATYYCQ LNTY PWTFGQGT	
Sbjct	78	SGSGSGTEFSLTISLQPEDFATYYCQQLNTYPPWTFGQGT	118

> ☐ gi|21669487|dbj|BAC01768.1| **U** immunoglobulin kappa light chain VLJ region [Homo sapiens]

Length=264.

Score = 166 bits (420), Expect = 4e-40, Method: Composition-based stats.
Identities = 90/99 (90%), Positives = 93/99 (93%), Gaps = 0/99 (0%)

```
Query 4 LTQSPSFLSASVGDRTTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
        LTQSPS LSASVGDRTTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS
Sbjct 26 LTQSPSSLSASVGDRTTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 85

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
        GSGS T+FTLTIS LQPEDFATYYCQ LN+YP TFG GT
Sbjct 86 GSGSGTDFTLTISLQPEDFATYYCQQLNSYPLTFGGGT 124
```

> gi|481992|pir||S40334 Ig kappa chain - human
Length=132

Score = 166 bits (419), Expect = 5e-40, Method: Composition-based stats.
Identities = 87/100 (87%), Positives = 94/100 (94%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRTTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
        +LTQSPSFLSAS+GDRVTITCRASQGI++YLAWYQQKPGKAPKLLIY ASTLQSGVPSRF
Sbjct 24 QLTQSPSFLSASIGDRVTITCRASQGINSYLAWYQQKPGKAPKLLIYVASTLQSGVPSRF 83

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
        SGSGS TEFTLTIS LQPEDFA+YYCQ N+YP+TFG GT
Sbjct 84 SGSGSGTEFTLTISLQPEDFASYCQFNSYPFTFGGGT 123
```

> gi|441357|emb|CAA51112.1| **U** Ig kappa light chain (VJC) [Homo sapiens]
Length=133

Score = 165 bits (418), Expect = 5e-40, Method: Composition-based stats.
Identities = 87/100 (87%), Positives = 94/100 (94%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRTTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
        +LTQSPSFLSAS+GDRVTITCRASQGI++YLAWYQQKPGKAPKLLIY ASTLQSGVPSRF
Sbjct 24 QLTQSPSFLSASIGDRVTITCRASQGINSYLAWYQQKPGKAPKLLIYVASTLQSGVPSRF 83

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
        SGSGS TEFTLTIS LQPEDFA+YYCQ N+YP+TFG GT
Sbjct 84 SGSGSGTEFTLTISLQPEDFASYCQFNSYPFTFGGGT 123
```

> gi|41388184|gb|AAS01771.1| **U** monoclonal IgM antibody light chain [Homo sapiens]
Length=236

Score = 165 bits (418), Expect = 6e-40, Method: Composition-based stats.
Identities = 87/100 (87%), Positives = 92/100 (92%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRTTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
        ++TQSPS LSASVGDRTTITCRASQGISNYLAWYQQKPGK PKLLIYAASLTQSGVPSRF
Sbjct 25 QMTQSPSSLSASVGDRTTITCRASQGISNYLAWYQQKPGKVPKLLIYAASLTQSGVPSRF 84

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
        SGSGS T+FTLTIS LQPED ATYYCQ N+ P+TFGQGT
Sbjct 85 SGSGSGTDFTLTISLQPEDVATYYCQKYNAPYTFGQGT 124
```

> gi|4063659|gb|AAC98364.1| scFV antibody V-region [synthetic construct]
Length=232

Score = 164 bits (416), Expect = 9e-40, Method: Composition-based stats.
Identities = 85/99 (85%), Positives = 93/99 (93%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPS LSASVGDRVTITCRASQGIS++LAWYQQKPGKAPKLL+Y AS+L+SGVPSRFS
 Sbjct 128 MTQSPSTLSASVGDRVTITCRASQGISSWLAWYQQKPGKAPKLLMYEASSLESQVPSRFS 187

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 GSGS TEFTLTIS LQP+DFA YYCQH NTYP+TFGQGT
 Sbjct 188 GSGSGTEFTLTISLQPDFAAAYCQHYNTYPYTFGQGT 226

> gi|58202720|gb|AAW67411.1| **U** rotavirus-specific intestinal-homing antibody light chain variable region [Homo sapiens]
 Length=109

Score = 164 bits (416), Expect = 9e-40, Method: Composition-based stats.
 Identities = 91/100 (91%), Positives = 95/100 (95%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ++TQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLTQSGVPSRF
 Sbjct 5 QVTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 64

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 SGSGS TEFTLTIS LQPEDFATYYCQ LN+YP TFG GT
 Sbjct 65 SGSGSGTEFTLTISLQPEDFATYYCQQLNSYPLTFGGGT 104

> gi|5690400|gb|AAD47068.1|AF163306.1 **U** anti-HLA-A2/A28 immunoglobulin light chain variable region [Homo sapiens]
 Length=108

Score = 164 bits (416), Expect = 1e-39, Method: Composition-based stats.
 Identities = 88/99 (88%), Positives = 93/99 (93%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPSFLSASVGDRVTITCRAS GI+NYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS
 Sbjct 4 MTQSPSFLSASVGDRVTITCRASHGINNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 GSGS TEFTLTIS LQPEDFATYYCQ ++YP TFG+GT
 Sbjct 64 GSGSGTEFTLTISLQPEDFATYYCQYDSYPPTFGRGT 102

> gi|4063657|gb|AAC98363.1| scFV antibody V-region [synthetic construct]
 Length=232

Score = 164 bits (414), Expect = 2e-39, Method: Composition-based stats.
 Identities = 84/99 (84%), Positives = 92/99 (92%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPS LSASVGDRVTITCRASQ IS++LAWYQQKPGKAPKLL+Y AS+L+SGVPSRFS
 Sbjct 128 MTQSPSTLSASVGDRVTITCRASQSISSWLAWYQQKPGKAPKLLMYEASSLESQVPSRFS 187

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 GSGS TEFTLTIS LQP+DFA YYCQH NTYP+TFGQGT
 Sbjct 188 GSGSGTEFTLTISLQPDFAAAYCQHYNTYPYTFGQGT 226

> gi|77378175|gb|ABA70812.1| immunoglobulin kappa light chain variable region [Homo sapiens]
 Length=128

Score = 164 bits (414), Expect = 2e-39, Method: Composition-based stats.
 Identities = 90/101 (89%), Positives = 91/101 (90%), Gaps = 1/101 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

+LT SPSFLSASVGDRVTITCRASQGI NYLAWYQQKPGKAPKLLIYAASLT SGVPSRF
 Sbjct 14 QLTPSPSFLSASVGDRVTITCRASQGIKNYLAWYQQKPGKAPKLLIYAASLT HSGVPSRF 73
 Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWT-FGQGT 102
 SGSGS TEFTLTIS LQPEDFATYYCQ LNTYP FG GT
 Sbjct 74 SGSGSGTEFTLTISLQPEDFATYYCQQLNTYPGVIFGPGT 114

> gi|13171340|gb|AAK13632.1|AF234256.1 **U** immunoglobulin light chain variable region [Homo sap:
 Length=107

Score = 163 bits (412), Expect = 3e-39, Method: Composition-based stats.
 Identities = 88/99 (88%), Positives = 92/99 (92%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPSFLSASVGDRVTITCRASQGISNYLAWYQQ+PGKAPKLLIYAASLTQ+GVPSRFS
 Sbjct 4 MTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQRPGKAPKLLIYAASLTQTGVPSRFS 63
 Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 GSGS TEFTLTIS LQPEDFATY+CQ L YP TFG GT
 Sbjct 64 GSGSGTEFTLTISLQPEDFATYFCQQLGGYPLTFGGGT 102

> gi|5360679|dbj|BAA82105.1 **U** anti-Entamoeba histolytica immunoglobulin kappa light chain [Hc
 sapiens]
 Length=215

Score = 163 bits (412), Expect = 3e-39, Method: Composition-based stats.
 Identities = 90/101 (89%), Positives = 94/101 (93%), Gaps = 1/101 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ++TQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLTQSGVPSRF
 Sbjct 3 QMTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTY-PWTFGQGT 102
 SGSGS TEFTLTIS LQPEDFATYYCQ LN+Y TFG GT
 Sbjct 63 SGSGSGTEFTLTISLQPEDFATYYCQQLNSYLALTFGGGT 103

> gi|114385548|gb|ABI74032.1 immunoglobulin light chain variable region [Homo sapiens]
 Length=110

Score = 163 bits (412), Expect = 3e-39, Method: Composition-based stats.
 Identities = 89/100 (89%), Positives = 94/100 (94%), Gaps = 0/100 (0%)


Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ELTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAAS+LQSGVPSRF
 Sbjct 3 ELTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASSLQSGVPSRF 62
 Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
 SGSGS T+FTLTIS LQPEDFATYYCQ N++P TFG GT
 Sbjct 63 SGSGSGTDFTLTISLQPEDFATYYCQANSFPLTFGGGT 102

> gi|51103393|gb|AAT96422.1 **U** immunoglobulin variable region VL kappa domain [Homo sapiens]
 Length=107

Score = 163 bits (412), Expect = 3e-39, Method: Composition-based stats.
 Identities = 90/99 (90%), Positives = 93/99 (93%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 LTQSPSFLSASVGDRVTITCRASQGIS YLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS
 Sbjct 4 LTQSPSFLSASVGDRVTITCRASQGISYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63


Query 64 . GSGSWTEFTLTISRLLQPEDFATYYCQHLNTPWTFGQGT 102
 GSGS T+FTLTIS LQPEDFATYYCQ N+ P+TFGQGT
 Sbjct 64 GSGSGTDFTLTISTLQPEDFATYYCQQFNSNPYTFGQGT 102

> [gi|5081721|gb|AAD39506.1|AF146408_1](#)  antibody light chain variable region [Homo sapiens]
 Length=108

Score = 163 bits (412), Expect = 3e-39, Method: Composition-based stats.
 Identities = 88/99 (88%), Positives = 91/99 (91%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPSFLSA VGDR+TITCRASQGIS YLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS
 Sbjct 4 MTQSPSFLSAFVGDRITITCRASQGISGYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63


Query 64 GSGSWTEFTLTISRLLQPEDFATYYCQHLNTPWTFGQGT 102
 GSGS TEFTLTIS LQPED ATYYCQ N+ PWTFGQGT
 Sbjct 64 GSGSGTEFTLTISGLQPEDVATYYCQKYNAPWTFGQGT 102

> [gi|49257007|gb|AAH73791.1](#)  IGKC protein [Homo sapiens]
 Length=236

Score = 162 bits (411), Expect = 3e-39, Method: Composition-based stats.
 Identities = 86/100 (86%), Positives = 90/100 (90%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ++TQSPS LSASVGDRVTITCRASQGISN L WYQQKPGKAPKLLIYAAS+LQSGVPSRF
 Sbjct 25 QMTQSPSSLSASVGDRVTITCRASQGISNDLGWYQQKPGKAPKLLIYAASSLTQSGVPSRF 84


Query 63 SGSGSWTEFTLTISRLLQPEDFATYYCQHLNTPWTFGQGT 102
 SGSGS T+FTLTIS LQPEDFATYYC YPWTFGQGT
 Sbjct 85 SGSGSGTDFTLTISLQPEDFATYYCLQDYNYPWTFGQGT 124

> [gi|21669353|dbj|BAC01701.1](#)  immunoglobulin kappa light chain VLJ region [Homo sapiens]
 Length=269

Score = 162 bits (411), Expect = 3e-39, Method: Composition-based stats.
 Identities = 84/99 (84%), Positives = 88/99 (88%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPS LSASVGDRVT TCRAS+GI N L WYQQKPGKAP+ LIYAASLTQSGVPSRFS
 Sbjct 26 MTQSPSSLSASVGDRVTFTCRASRGIRNDLGWYQQKPGKAPERLIYAASLTQSGVPSRFS 85

Query 64 GSGSWTEFTLTISRLLQPEDFATYYCQHLNTPWTFGQGT 102
 GSGS TEFTLTIS LQPEDFATYYC N+YPWTFGQGT
 Sbjct 86 GSGSGTEFTLTISLQPEDFATYYCLQHNSYPWTFGQGT 124

> [gi|567146|gb|AAA52924.1](#)  immunoglobulin gamma-chain, V region [Homo sapiens]
 Length=149

Score = 162 bits (411), Expect = 4e-39, Method: Composition-based stats.
 Identities = 89/100 (89%), Positives = 91/100 (91%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ELTQSPS LSASVGDRVTITCRASQGISNYLAWYQQKPGK PKLLIYAASLTQSGVPSRF
 Sbjct 1 ELTQSPSSLSASVGDRVTITCRASQGISNYLAWYQQKPGKVPKLLIYAASLTQSGVPSRF 60

Query 63 SGSGSWTEFTLTISRLLQPEDFATYYCQHLNTPWTFGQGT 102
 SGSGS T+FTLTIS LQPED ATYYCQ N+ P TFGQGT
 Sbjct 61 SGSGSGTDFTLTISLQPEDVATYYCQKYNAPRTFGQGT 100

> gi|7012707|gb|AAF35179.1| **U** immunoglobulin light chain variable region [Homo sapiens]
Length=107

Score = 162 bits (410), Expect = 5e-39, Method: Composition-based stats.
Identities = 88/100 (88%), Positives = 92/100 (92%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
      ++TQSPS LSASVGDRVTITCRASQGI NYLAW+QQKPGKAPK LIYAAS LQSGVPSRF
Sbjct 3 QMTQSPSSLSASVGDRVTITCRASQGI RNYLAWFQQKPGKAPKSLIYAASNLTQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      SGSGS T+FTLTIS LQPEDFATYYCQ NTYPWTFGQGT
Sbjct 63 SGSGSGTDFTLTISSLQPEDFATYYCQQHNTYPWTFGQGT 102
```

> gi|306993|gb|AAA20164.1| immunoglobulin light chain
Length=104

Score = 162 bits (409), Expect = 6e-39, Method: Composition-based stats.
Identities = 89/98 (90%), Positives = 95/98 (96%), Gaps = 0/98 (0%)

```
Query 5 TQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFSG 64
      TQSPSFLSASVGDRVT+TCRASQGIS+YLAWYQQKPGKAPKLLIYAASLT+SGVP+RFSG
Sbjct 1 TQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTESGVPTRFSG 60

Query 65 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      SGS TEFTLTIS LQPEDFATYYCQ LN+YP+TFGQGT
Sbjct 61 SGSGTEFTLTISLQPEDFATYYCQQLNSYPFTFGQGT 98
```

> gi|45501244|gb|AAH67226.1| **UG** IGKC protein [Homo sapiens]
Length=236

Score = 162 bits (409), Expect = 6e-39, Method: Composition-based stats.
Identities = 84/100 (84%), Positives = 88/100 (88%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
      +LTQSPSFLSA+VGDRV+ITCRASQ IS YLAWYQ K GKAPKLLIY ASTLTQSGVPSRF
Sbjct 25 QLTQSPSFLSAAVGDRVSITCRASQDISKYLAWYQHKIGKAPKLLIYGASTLTQSGVPSRF 84

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      SGSGS TEFTLT+ LQPED ATYYCQ LN YP TFG GT
Sbjct 85 SGSGSGTEFTLTINSLQPEDLATYYCQQLNNYPLTFGGT 124
```

> gi|63102969|gb|AAY33390.1| **U** anti-rabies virus immunoglobulin light chain variable region
[Homo sapiens]
Length=107

Score = 162 bits (409), Expect = 6e-39, Method: Composition-based stats.
Identities = 90/100 (90%), Positives = 95/100 (95%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
      ++TQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLTQSGVPSRF
Sbjct 3 QMTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      SGSGS TEFTLTIS LQPEDFATY CQ L++YP TFGQGT
Sbjct 63 SGSGSGTEFTLTISLQPEDFATYSCQQLDSYPITFGQGT 102
```

> gi|11275318|dbj|BAB18259.1| **U** anti HBs antibody light-chain Fab fragment [Homo sapiens]
Length=214

Score = 161 bits (408), Expect = 8e-39, Method: Composition-based stats.
Identities = 83/100 (83%), Positives = 88/100 (88%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRF 62
        ELTQSPS ++ASVGDRVTITCRASQGI NYL W+QQKPGK PK LIYAAS+LQSGVPSRF
Sbjct 3 ELTQSPSAMAASVGDRVTITCRASQGIGNYLVWFQQKPGKVPKRLIYAASSLQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        SGSGS TEFTLTIS LQPEDFATYYC H N YP +FG GT
Sbjct 63 SGSGSGTEFTLTISLQPEDFATYYCLHHNNYPLSFGGGT 102
```

> gi|4063661|gb|AAC98365.1| scFV antibody V-region [synthetic construct]
Length=232

Score = 161 bits (408), Expect = 8e-39, Method: Composition-based stats.
Identities = 84/100 (84%), Positives = 93/100 (93%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRF 62
        ++TQSPS LSASVGDRVTITCRASQ IS++LAWYQQKPGKAPKLL+Y AS+L+SGVPSRF
Sbjct 127 QMTQSPSTLSASVGDRVTITCRASQSISSWLAWYQQKPGKAPKLLMYEASSLESQSGVPSRF 186

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        SGSGS TEFTLTIS LQP+DFA YYCQH NTYP+TFGQGT
Sbjct 187 SGSGSGTEFTLTISLQPDFAAYYCQHYNTYPYTFGQGT 226
```

> gi|3046470|gb|AAC13450.1| anti-Rh(D) antibody V kappa segment [synthetic construct]
Length=107

Score = 161 bits (408), Expect = 8e-39, Method: Composition-based stats.
Identities = 91/102 (89%), Positives = 96/102 (94%), Gaps = 1/102 (0%)

```
Query 2 AELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSR 61
        AELTQSPSFLSASVGDRVTITCRASQGI++YLAWYQQKPGKAPKLLIYAASLQSGVPSR
Sbjct 1 AELTQSPSFLSASVGDRVTITCRASQGITSYLAWYQQKPGKAPKLLIYAASLQSGVPSR 60

Query 62 FSGSGSWTEFTLTISRLQPEDFATYYCQHLNTY-PWTFGQGT 102
        FSGSGS TEFTLTII+ LQP+DFATYYCQ LN Y P+TFG GT
Sbjct 61 FSGSGSGTEFTLTIASLQPDFAAYYCQQLNNYPFTFGPGT 102
```

> gi|70798869|gb|AAZ09144.1| **U** immunoglobulin kappa light chain variable region [Homo sapiens]
Length=109

Score = 161 bits (408), Expect = 9e-39, Method: Composition-based stats.
Identities = 89/99 (89%), Positives = 93/99 (93%), Gaps = 0/99 (0%)

```
Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRFS 63
        LTQSPSFLSASVGDRVTITCRASQGIS+YLAW+QQ PGKAPKLLIYAASLQSGVPSRFS
Sbjct 1 LTQSPSFLSASVGDRVTITCRASQGISSYLAWFQQNPGKAPKLLIYAASLQSGVPSRFS 60

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        GSGS TEFTLTIS LQPEDFATYYCQ +N+YP TFG GT
Sbjct 61 GSGSGTEFTLTISLQPEDFATYYCQVNSYPLTFGGGT 99
```

> gi|63103079|gb|AAY33445.1| **U** anti-rabies virus immunoglobulin light chain variable region
[Homo sapiens]
Length=107

Score = 161 bits (407), Expect = 1e-38, Method: Composition-based stats.
Identities = 89/100 (89%), Positives = 95/100 (95%), Gaps = 0/100 (0%)

```

Query 3  ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 62
        +LTQSPS LSASVGDRVTITCRASQGI++YLAWYQQ+PGKAPKLLIYAASTLQSGVPSRF
Sbjct 3  QLTQSPSTLSASVGDRVTITCRASQGISNYLAWYQQEPGKAPKLLIYAASTLQSGVPSRF 62

Query 63  SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        SGSGS TEFTLTIS LQPEDFATYYCQ LN+YP+TFG GT
Sbjct 63  SGSGSGTEFTLTISLQPEDFATYYCQQLNSYPFTFGPGT 102

```

```

> gi|542905|pir||S40318 Ig kappa chain V region - human
   gi|441325|emb|CAA51096.1| Ig kappa light chain (VJ) [Homo sapiens]
Length=124

```

Score = 161 bits (407), Expect = 1e-38, Method: Composition-based stats.
Identities = 87/100 (87%), Positives = 94/100 (94%), Gaps = 0/100 (0%)

```

Query 3  ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 62
        +LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQK G+APK+LIYAASTLQSGVPSRF
Sbjct 19  QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKVGEAPKVLIIYAASTLQSGVPSRF 78

Query 63  SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        SGSGS TEF+LTIS LQPEDFATYYC +N+YP TFGQGT
Sbjct 79  SGSGSGTEFSLTISLQPEDFATYYCHQVNSYPQTFGQGT 118

```

```

> gi|18307264|gb|AAL65703.1| immunoglobulin light chain kappa variable region [Homo sapiens]
Length=102

```

Score = 160 bits (406), Expect = 1e-38, Method: Composition-based stats.
Identities = 90/97 (92%), Positives = 92/97 (94%), Gaps = 0/97 (0%)

```

Query 6  QSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRFSGS 65
        QSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASTLQSGVPSRFSGS
Sbjct 1  QSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASTLQSGVPSRFSGS 60

Query 66  GSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        GS TEFTLTIS LQPEDFATYYCQ LN+YP FGQGT
Sbjct 61  GSGTEFTLTISLQPEDFATYYCQQLNSYPLAFGQGT 97

```

```

> gi|12655530|emb|CAC27616.1| immunoglobulin kappa chain variable region [Homo sapiens]
Length=103

```

Score = 160 bits (406), Expect = 1e-38, Method: Composition-based stats.
Identities = 90/100 (90%), Positives = 94/100 (94%), Gaps = 0/100 (0%)

```

Query 3  ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 62
        +LTQSPSFLSAS+ DRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASTLQSGVPSRF
Sbjct 2  QLTQSPSFLSASIRDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 61

Query 63  SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102
        SGSGS TEFTLTIS LQPEDFATYYCQ LN+YP TFGQGT
Sbjct 62  SGSGSGTEFTLTISRLQPEDFATYYCQQLNSYPITFGQGT 101

```

```

> gi|732746|emb|CAA84391.1| antibody, light chain variable regin to HIV1 gp41 [Homo sapiens]
Length=115

```

Score = 160 bits (406), Expect = 1e-38, Method: Composition-based stats.
Identities = 89/102 (87%), Positives = 95/102 (93%), Gaps = 2/102 (1%)

```

Query 3  ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 62
        +LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASTLQSGVPSRF

```

Sbjct 8 . QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 67

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYP--WTFGQGT 102

SGSGS +FTLTIS LQPEDFATYYCQ LN++P +TFG GT

Sbjct 68 SGSGSGPDFTLTISLQPEDFATYYCQQLNSFPRVFTFGPGT 109

> gi|4063667|gb|AAC98368.1| scFV antibody V-region [synthetic construct]
Length=228

Score = 160 bits (406), Expect = 1e-38, Method: Composition-based stats.
Identities = 87/99 (87%), Positives = 90/99 (90%), Gaps = 0/99 (0%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63

LTQSPSFLSASVGDRVTITCRAS GISNYLAWYQ KPGKAPKLLIYAASLTQ+GVPS FS

Sbjct 124 LTQSPSFLSASVGDRVTITCRASHGISNYLAWYQHKPGKAPKLLIYAASLTQNGVPSTFS 183

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102

GSGS TEFTLTIS LQP+DFATYYCQ L +YP TFG GT

Sbjct 184 GSGSGTEFTLTISLQPDDEFATYYCQQLISYPLTFGGGT 222

> gi|3644022|gb|AAC43029.1| **U** anti-mucin1 light chain variable region [Homo sapiens]
Length=107

Score = 160 bits (405), Expect = 2e-38, Method: Composition-based stats.
Identities = 88/100 (88%), Positives = 93/100 (93%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

++TQSPSFLSASVGDRVTITCRASQGIS+ AWYQQKPGKAPKLLIYAASLTQSGVPSRF

Sbjct 3 QMTQSPSFLSASVGDRVTITCRASQGISSNFAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102

SGSG TEFTLTIS LQPEDFATYYCQ LN++P TFGQGT

Sbjct 63 SGSGFGTEFTLTISLQPEDFATYYCQQLNSFPRTFGQGT 102

> gi|12655532|emb|CAC27617.1| immunoglobulin kappa chain variable region [Homo sapiens]
Length=104

Score = 160 bits (405), Expect = 2e-38, Method: Composition-based stats.
Identities = 93/101 (92%), Positives = 95/101 (94%), Gaps = 1/101 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

+LTQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAP LLIYAASLTQSGVPSRF

Sbjct 2 QLTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPNLLIYAASLTQSGVPSRF 61

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPW-TFGQGT 102

SGSGS TEFTLTIS LQPEDFATYYCQHLN YP TFGQGT

Sbjct 62 SGSGSGTEFTLTISLQPEDFATYYCQHLNGYPPNTFGQGT 102

> gi|5081723|gb|AAD39507.1|AF146409_1 **U** antibody light chain variable region [Homo sapiens]
Length=108

Score = 160 bits (405), Expect = 2e-38, Method: Composition-based stats.
Identities = 87/100 (87%), Positives = 93/100 (93%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

++TQSPSFLSASVGDRVTITCRASQ I+++LAWYQQKPGKAPKLLIYAAS LQSGVPSRF

Sbjct 3 QMTQSPSFLSASVGDRVTITCRASQHINSWLAWYQQKPGKAPKLLIYAASRLQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTYPWTFGQGT 102

SGSGS TEFTLTIS LQPEDFATYYCQ LN+YP TFG GT

Sbjct 63 . SGSGSGTEFTLTISLQPEDFATYYCQQLNSYPLTFGGGT 102

> [gi|93278678|pdb|2AJ3|A](#) **S** Chain A, Crystal Structure Of A Cross-Reactive Hiv-1 Neutralizing Cd4-Binding Site Antibody Fab M18

[gi|93278680|pdb|2AJ3|C](#) **S** Chain C, Crystal Structure Of A Cross-Reactive Hiv-1 Neutralizing Cd4-Binding Site Antibody Fab M18

[gi|93278682|pdb|2AJ3|E](#) **S** Chain E, Crystal Structure Of A Cross-Reactive Hiv-1 Neutralizing Cd4-Binding Site Antibody Fab M18

Length=213

Score = 160 bits (405), Expect = 2e-38, Method: Composition-based stats.
Identities = 83/100 (83%), Positives = 90/100 (90%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

++TQSPSFLSASVGDRV+ITCRASQ I +LAWYQ PG APKLL+Y+ASTLTQSGVPSRF

Sbjct 2 QMTQSPSFLSASVGDRVSITCRASQDIQKFLAWYQLTPGDAPKLLMYSASTLTQSGVPSRF 61

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102

SGSGS TEFTLTIS LQPEDFATYYCQHL YP+TFGQGT

Sbjct 62 SGSGSGTEFTLTISGLQPEDFATYYCQHLKRYPTYTFGQGT 101

> [gi|47109384|emb|CAG28673.1|](#) anti-PLAP ScFv antibody [synthetic construct]
Length=246

Score = 160 bits (405), Expect = 2e-38, Method: Composition-based stats.
Identities = 89/100 (89%), Positives = 91/100 (91%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

ELTQSPS LSASVGDRVTITCRASQGISNYLAWYQQKPGK PKLLIYAASLTQSGVPSRF

Sbjct 132 ELTQSPSSLSASVGDRVTITCRASQGISNYLAWYQQKPGKVPKLLIYAASLTQSGVPSRF 191

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102

SGSGS T+FTLTIS LQPED ATYYCQ N+ P TFGQGT

Sbjct 192 SGSGSGTDFTLTISLQPEDVATYYCQKYNAPRTFGQGT 231

> [gi|63103033|gb|AAV33422.1|](#) **U** anti-rabies virus immunoglobulin light chain variable region [Homo sapiens]
Length=107

Score = 160 bits (404), Expect = 2e-38, Method: Composition-based stats.
Identities = 89/100 (89%), Positives = 94/100 (94%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62

+LTQSPS LSASVGDRVTITCRASQGIS++LAWYQQKPGKAPKLLIYAAS+LQSGVPSRF

Sbjct 3 QLTQSPSSLSASVGDRVTITCRASQGISSHLAWYQQKPGKAPKLLIYAASSLTQSGVPSRF 62

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102

SGSGS TEFTLTIS LQPEDFATYYCQ N+YP TFGQGT

Sbjct 63 SGSGSGTEFTLTISLQPEDFATYYCQQFNSYPITFGQGT 102

> [gi|1514581|emb|CAA65058.1|](#) immunoglobulin kappa light chain [synthetic construct]
Length=234

Score = 160 bits (404), Expect = 2e-38, Method: Composition-based stats.
Identities = 85/101 (84%), Positives = 95/101 (94%), Gaps = 0/101 (0%)

Query 2 AELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSR 61

AELTQSPS +SASVGDRVTITCRASQGIS++LAWYQQKPGKAPKLLIY+AS+LQSGVPSR

Sbjct 22 AELTQSPSSVSASVGDRVTITCRASQGISSWLAWYQQKPGKAPKLLIYSASSLTQSGVPSR 81

Query 62 FSGSGSWTEFTLTISRQLQPEDFATYYCQHLNTPWTFGQGT 102
 FSGSGS T+F+LTIS LQPED ATYYCQ N++P+TFGQGT
 Sbjct 82 FSGSGSGTDFSLTISSLQPEDSATYYCQQANSFPYTFGQGT 122

> gi|84797980|gb|ABC66939.1| **U** immunoglobulin light chain variable region EM5-PPS-14-K1-1 [Homo sapiens]
 Length=119

Score = 160 bits (404), Expect = 2e-38, Method: Composition-based stats.
 Identities = 89/99 (89%), Positives = 94/99 (94%), Gaps = 1/99 (1%)

Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 63
 +TQSPSFLSASVGD+VTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS
 Sbjct 6 MTQSPSFLSASVGDKVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFS 65

Query 64 GSGSWTEFTLTISRQLQPEDFATYYCQHLNTPWTFGQGT 102
 GSGS TEFTLTIS LQPEDFATYYCQ LN+YP+ FG GT
 Sbjct 66 GSGSGTEFTLTISLQPEDFATYYCQQLNSYPF-FGGGT 103

> gi|21669293|dbj|BAC01671.1| **U** immunoglobulin kappa light chain VLJ region [Homo sapiens]
 Length=271

Score = 160 bits (404), Expect = 3e-38, Method: Composition-based stats.
 Identities = 84/100 (84%), Positives = 93/100 (93%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ++TQSPS LSASVGDRVTITCRASQ +++YL WYQQKPGKAPKLLIYAAS+LQSGVPSRF
 Sbjct 25 QMTQSPSSLSASVGDRVTITCRASQSVTSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRF 84

Query 63 SGSGSWTEFTLTISRQLQPEDFATYYCQHLNTPWTFGQGT 102
 SGSGS TEFTLTIS LQ+DFATYYCQ N+YP+TFGQGT
 Sbjct 85 SGSGSGTEFTLTISLQPDDEFATYYCQQYNSYPYTFGQGT 124

> gi|5731263|gb|AAD48839.1| single-chain Fv antibody SR19 [synthetic construct]
 Length=248

Score = 159 bits (403), Expect = 3e-38, Method: Composition-based stats.
 Identities = 84/100 (84%), Positives = 92/100 (92%), Gaps = 0/100 (0%)

Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRF 62
 ++TQSPS LSASVGD+VTITCRASQ IS+YL WYQQKPGKAPKLLIYAAS+LQSGVPSRF
 Sbjct 143 QMTQSPSSLSASVGDKVTITCRASQSISSYLNWYQQKPGKAPKLLIYAASSLQSGVPSRF 202

Query 63 SGSGSWTEFTLTISRQLQPEDFATYYCQHLNTPWTFGQGT 102
 SGSGS T+FTLTIS LQ+DFATYYCQ N+Y WTFGQGT
 Sbjct 203 SGSGSGTDFTLTISSLQPDDEFATYYCQQYNSYSWTFGQGT 242

> gi|58032607|gb|AAW63086.1| anti-pneumococcal antibody 54B11 light chain [Homo sapiens]
 Length=189

Score = 159 bits (403), Expect = 3e-38, Method: Composition-based stats.
 Identities = 86/97 (88%), Positives = 87/97 (89%), Gaps = 0/97 (0%)

Query 6 QSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLTQSGVPSRFSGS 65
 QSPS LSASVGDRVTITCRASQGI N L WYQQKPGKAPK LIYAASLTQSGVPSRFSGS
 Sbjct 1 QSPSSLSASVGDRVTITCRASQGI RNDLGWYQQKPGKAPKRLIYAASLTQSGVPSRFSGS 60

Query 66 GSWTEFTLTISRQLQPEDFATYYCQHLNTPWTFGQGT 102
 GS TEFTLTIS LQPEDFATYYC N+YPWTFGQGT

Sbjct 61 . GSGTEFTLTISLQPEDFATYYCLQHNSYPWTFGQGT 97

> gi|12655528|emb|CAC27615.1| immunoglobulin kappa chain variable region [Homo sapiens]
Length=103

Score = 159 bits (403), Expect = 3e-38, Method: Composition-based stats.
Identities = 91/100 (91%), Positives = 95/100 (95%), Gaps = 0/100 (0%)

```
Query 3 ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRF 62
      ++TQSPSFLSASVGDRVTITCRASQGIS+YLAWYQQKPGKAPKLLIYAASLQSGVPSRF
Sbjct 2 QMTQSPSFLSASVGDRVTITCRASQGISSYLAWYQQKPGKAPKLLIYAASLQSGVPSRF 61

Query 63 SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      SGSGS TEFTLTIS LQPEDFATYYCQ LN+Y TFGQGT
Sbjct 62 SGSGSGTEFTLTISLQPEDFATYYCQQLNSYSITFGQGT 101
```

> gi|33355929|gb|AAQ16318.1| anti-human kappa light chain antibody Fab AbLBPlL [synthetic
construct]
Length=239

Score = 159 bits (402), Expect = 4e-38, Method: Composition-based stats.
Identities = 84/101 (83%), Positives = 91/101 (90%), Gaps = 0/101 (0%)

```
Query 2 AELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSR 61
      AELTQSPS LSASVGDRV+ITCRASQ IS YL WYQQKPGKAPKLLIYAAS+L+SGVPSR
Sbjct 22 AELTQSPSSLSASVGDRVSITCRASQTISRYLNWYQQKPGKAPKLLIYAASSLKSGVPSR 81

Query 62 FSGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      FSGSGS T+FTLTI+ LQPEDFATYYCQ N++P TFG GT
Sbjct 82 FSGSGSATDFTLTINSLQPEDFATYYCQANSFPLTFGGGT 122
```

> gi|29725718|gb|AAO91639.1| **U** anti-HLA-A2/A28 immunoglobulin light chain variable region [Homo sapiens]
Length=107

Score = 159 bits (402), Expect = 4e-38, Method: Composition-based stats.
Identities = 86/99 (86%), Positives = 89/99 (89%), Gaps = 0/99 (0%)

```
Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRFS 63
      +TQSPSFL ASVGDRVTITCRAS GISNY AWYQQKPGKAPKLLIYA STLQSGVPSRFS
Sbjct 4 MTQSPSFLXASVGDRVTITCRASHGISNYFAWYQQKPGKAPKLLIYATSTLQSGVPSRFS 63

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      GSGS TEFTLTIS LQPEDFATYYCQ ++YP TFG GT
Sbjct 64 GSGSGTEFTLTISGLQPEDFATYYCQYSSYPLTFGHGT 102
```

> gi|58222496|gb|AAW68880.1| **U** anti-tetanus toxoid immunoglobulin light chain variable region [Homo sapiens]
Length=107

Score = 159 bits (402), Expect = 4e-38, Method: Composition-based stats.
Identities = 86/99 (86%), Positives = 90/99 (90%), Gaps = 0/99 (0%)

```
Query 4 LTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASLQSGVPSRFS 63
      +TQSP FLASVGDRVTITCRASQG+S YLAWYQ KPGKAPKLLIYAASLQSGVPSRFS
Sbjct 4 MTQSPPFSLASVGDRVTITCRASQGLSTYLAWYQVKPGKAPKLLIYAASLQSGVPSRFS 63

Query 64 GSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
      GSGS TEFTLTI+ LQPEDFATYYCQ L+TYP T G GT
Sbjct 64 GSGSGTEFTLTINSLQPEDFATYYCQQLDTPYPLTLGGGT 102
```

> gi|13171342|gb|AAK13633.1|AF234257.1 U immunoglobulin light chain variable region [Homo sap:
Length=107

Score = 159 bits (402), Expect = 4e-38, Method: Composition-based stats.
Identities = 85/100 (85%), Positives = 92/100 (92%), Gaps = 0/100 (0%)

```
Query 3      ELTQSPSFLSASVGDRVTITCRASQGISNYLAWYQQKPGKAPKLLIYAASTLQSGVPSRF 62
           E+TQSPS LSASVGDRVTITCRASQ I+N+LAWYQQ+PGKAP LLIY ASTLQ+GVPSRF
Sbjct 3      EMTQSPSTLSASVGDRVTITCRASQSINNWLAWYQQRPGKAPNLLIYKASTLQNGVPSRF 62

Query 63     SGSGSWTEFTLTISRLQPEDFATYYCQHLNTPWTFGQGT 102
           SGSGS TEFTLTIS LQP+DFATYYCQ N+YPWTFGQGT
Sbjct 63     SGSGSGTEFTLTISSLQPDDEFATYYCQQYNSYPWTFGQGT 102
```

Get selected sequences

Select all

Deselect all

Distance tree of results

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding
environmental samples

Posted date: Feb 26, 2007 5:55 PM

Number of letters in database: 1,607,774,624

Number of sequences in database: 4,657,147

Lambda K H
0.317 0.129 0.405

Gapped
Lambda K H
0.267 0.0410 0.140

Matrix: BLOSUM62

Gap Penalties: Existence: 11, Extension: 1

Number of Sequences: 4657147

Number of Hits to DB: 32242863

Number of extensions: 1152658

Number of successful extensions: 2474

Number of sequences better than 10: 4

Number of HSP's better than 10 without gapping: 0

Number of HSP's gapped: 2503

Number of HSP's successfully gapped: 4

Length of query: 102

Length of database: 1607774624

Length adjustment: 71

Effective length of query: 31

Effective length of database: 1277117187

Effective search space: 39590632797

Effective search space used: 39590632797

T: 11

A: 40

X1: 16 (7.3 bits)

X2: 38 (14.6 bits)

X3: 64 (24.7 bits)

S1: 41 (20.4 bits)

S2: 71 (32.0 bits)

32

BLASTP 2.2.15 [Oct-15-2006]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

Reference:

Schäffer, Alejandro A., L. Aravind, Thomas L. Madden, Sergei Shavirin, John L. Spouge, Yuri I. Wolf, Eugene V. Koonin, and Stephen F. Altschul (2001), "Improving the accuracy of PSI-BLAST protein database searches with composition-based statistics and other refinements", Nucleic Acids Res. 29:2994-3005.

RID: 1172616742-22831-88631162316.BLASTQ3

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples
4,657,147 sequences; 1,607,774,624 total letters

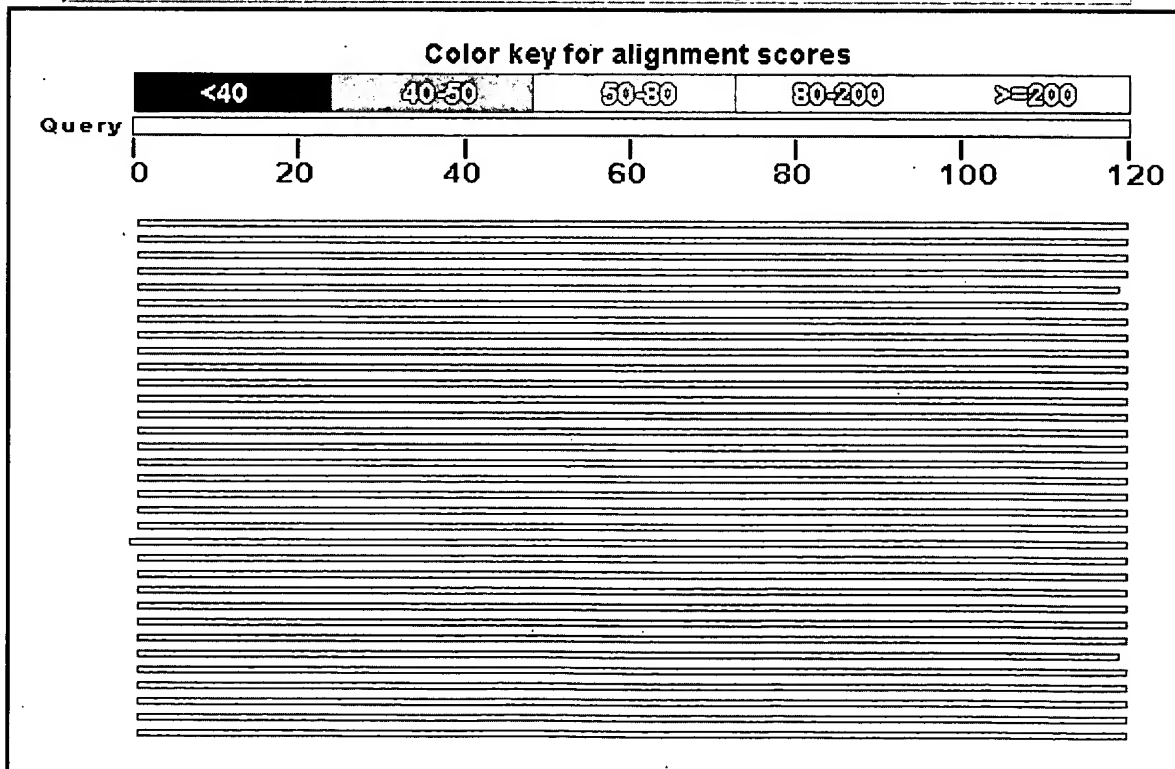
If you have any problems or questions with the results of this search please refer to the [BLAST FAQs](#)

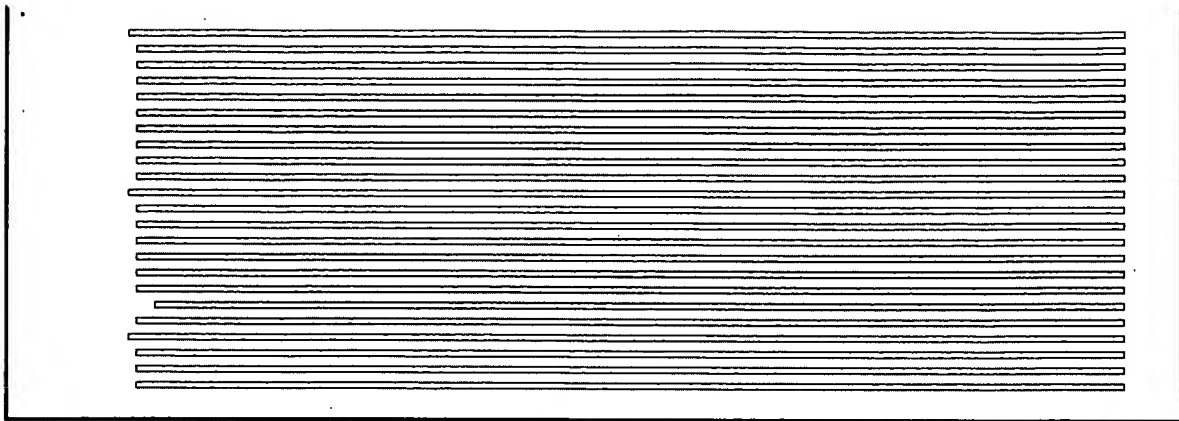
[Taxonomy reports](#)

Query= *SEQ ID NO: 7*
Length=120

Distribution of 100 Blast Hits on the Query Sequence

Mouse-over to show defline and scores, click to show alignments





[Distance tree of results](#) ^{NEW} [Related Structures](#)

Sequences producing significant alignments:		Score (Bits)	E Value	
gi|9837148|gb|AAG00448.1|	anti-human melanoma single-chain va...	167	2e-40	
gi|87919|pir||S14683	Ig mu chain precursor, membrane-bound (c...	166	3e-40	
gi|106898801|gb|ABF83394.1|	circulating B cell antibody heavy...	164	1e-39	
gi|38382881|gb|AAH62336.1|	IGHG1 protein [Homo sapiens]	164	1e-39	
gi|15886932|emb|CAC88723.1|	immunoglobulin heavy chain variable	162	4e-39	
gi|93279222|pdb|2DD8|H	Chain H, Crystal Structure Of Sars-Cov...	162	6e-39	
gi|42543658|pdb|1RZI|B	Chain B, Crystal Structure Of Human An...	160	3e-38	
gi|87813|pir||B32274	Ig heavy chain precursor V-I region (EVI...	159	3e-38	
gi|185151|gb|AAA52828.1|	immunoglobulin heavy chain precursor [H	159	3e-38	
gi|2344914|gb|AAC51687.1|	IgM heavy chain VH1 region precursor [	159	4e-38	
gi|27728677|gb|AAO17821.1|	anti-rabies S057 immunoglobulin heavy	159	5e-38	
gi|21668772|dbj|BAC01413.1|	immunoglobulin heavy chain VHDJ regi	159	5e-38	
gi|3170859|gb|AAC18234.1|	immunoglobulin heavy chain variable re	158	7e-38	
gi|122892236|gb|ABM67185.1|	immunoglobulin heavy chain variable	158	9e-38	
gi|118405991|gb|ABK81358.1|	immunoglobulin heavy chain variable	157	1e-37	
gi|45504721|gb|AAS66904.1|	immunoglobulin heavy chain variable r	157	1e-37	
gi|45504713|gb|AAS66900.1|	immunoglobulin heavy chain variable r	157	1e-37	
gi|2344944|gb|AAC51702.1|	IgM heavy chain VH1 region precursor [	157	1e-37	
gi|29892991|emb|CAD87747.1|	immunoglobulin heavy chain variable	157	2e-37	
gi|2344934|gb|AAC51697.1|	IgM heavy chain VH1 region precursor [	157	2e-37	
gi|4468364|emb|CAB38066.1|	immunoglobulin heavy chain variable r	156	3e-37	
gi|15886988|emb|CAC88751.1|	immunoglobulin heavy chain variable	156	3e-37	
gi|118406380|gb|ABK81550.1|	immunoglobulin heavy chain variable	156	3e-37	
gi|21670665|dbj|BAC02342.1|	immunoglobulin heavy chain VHDJ regi	156	4e-37	
gi|29892983|emb|CAD87743.1|	immunoglobulin heavy chain variable	155	4e-37	
gi|106703|pir||PH0958	Ig heavy chain V region (G6+ CLL-HUR) - hu	155	5e-37	
gi|20453025|gb|AAM19761.1|	immunoglobulin heavy chain variable r	155	5e-37	
gi|15886946|emb|CAC88730.1|	immunoglobulin heavy chain variable	155	5e-37	
gi|70798211|gb|AAZ08818.1|	immunoglobulin heavy chain variable r	155	5e-37	
gi|15886958|emb|CAC88736.1|	immunoglobulin heavy chain variable	155	5e-37	
gi|106897089|gb|ABF83204.1|	circulating B cell antibody heavy...	155	6e-37	
gi|2344942|gb|AAC51701.1|	IgM heavy chain VH1 region precursor [	155	6e-37	
gi|3170785|gb|AAC18197.1|	immunoglobulin heavy chain variable re	155	6e-37	
gi|27261427|gb|AAN85866.1|	anti-keratin monoclonal antibody [...	155	6e-37	
gi|4456566|emb|CAB37165.1|	immunoglobulin heavy chain variable r	155	7e-37	
gi|70798436|gb|AAZ08930.1|	immunoglobulin heavy chain variable r	155	7e-37	

gi|15886984|emb|CAC88749.1|	immunoglobulin heavy chain variable	155	7e-37	U
gi|2344928|gb|AAC51694.1|	IgM heavy chain VH1 region precursor [	[155	8e-37	
gi|46255803|gb|AAH69016.1|	IGHG1 protein [Homo sapiens]	154	9e-37	UG
gi|3170841|gb|AAC18225.1|	immunoglobulin heavy chain variable re	154	1e-36	U
gi|1082511|pir||S46394	Ig heavy chain V region - human >gi|13...	154	1e-36	
gi|45595687|gb|AAH67091.1|	IGHG1 protein [Homo sapiens]	154	1e-36	UG
gi|5679470|emb|CAB51710.1|	immunoglobulin heavy chain variable r	154	1e-36	U
gi|14573203|gb|AAK67990.1|	immunoglobulin heavy chain variable r	154	1e-36	U
gi|15886972|emb|CAC88743.1|	immunoglobulin heavy chain variable	154	1e-36	U
gi|87239718|emb|CAJ76653.1|	anti-BINOL ScFv antibody [synthetic	154	1e-36	
gi|185325|gb|AAB00782.1|	Ig heavy chain	154	1e-36	
gi|106478|pir||C33548	Ig heavy chain V-1 region (783) - human	154	2e-36	
gi|60616488|gb|AAX31272.1|	immunoglobulin heavy chain variable r	154	2e-36	U
gi|106479|pir||B33548	Ig heavy chain V-1 region (AND) - human	153	2e-36	
gi|46254144|gb|AAS86042.1|	immunoglobulin heavy chain [Homo sapi	153	2e-36	U
gi|70798229|gb|AAZ08827.1|	immunoglobulin heavy chain variable r	153	2e-36	U
gi|14573207|gb|AAK67992.1|	immunoglobulin heavy chain variabl...	153	2e-36	U
gi|45504715|gb|AAS66901.1|	immunoglobulin heavy chain variable r	153	2e-36	U
gi|70798404|gb|AAZ08914.1|	immunoglobulin heavy chain variable r	153	2e-36	U
gi|77158067|gb|ABA62049.1|	immunoglobulin epsilon heavy chain...	153	2e-36	U
gi|74146792|gb|ABA00058.1|	immunoglobulin epsilon heavy chain...	153	2e-36	U
gi|58221628|gb|AAW68456.1|	anti-tetanus toxoid immunoglobulin...	153	2e-36	U
gi|3170813|gb|AAC18211.1|	immunoglobulin heavy chain variable re	153	2e-36	U
gi|39937969|gb|AAR32404.1|	immunoglobulin heavy chain variable r	153	3e-36	U
gi|4139210|gb|AAD03728.1|	immunoglobulin IgM heavy chain variabl	153	3e-36	U
gi|2344976|gb|AAC51718.1|	IgM heavy chain VH1 region precursor [	[153	3e-36	U
gi|4836312|gb|AAD30400.1|AF115114_1	immunoglobulin heavy chain v	153	3e-36	U
gi|225801|prf||1313976B	rheumatoid factor KAS	153	3e-36	
gi|10636975|emb|CAC10771.1|	immunoglobulin heavy chain variable	153	3e-36	U
gi|21669729|dbj|BAC01874.1|	immunoglobulin heavy chain VHDJ regi	153	3e-36	U
gi|10444475|gb|AAG17912.1|	immunoglobulin heavy chain variable r	153	3e-36	U
gi|21669963|dbj|BAC01991.1|	immunoglobulin heavy chain VHDJ regi	153	3e-36	U
gi|70798007|gb|AAZ08716.1|	immunoglobulin heavy chain variable r	152	3e-36	U
gi|3171039|gb|AAC18320.1|	immunoglobulin heavy chain variable re	152	3e-36	U
gi|3170697|gb|AAC18153.1|	immunoglobulin heavy chain variable re	152	3e-36	U
gi|3004730|gb|AAC09104.1|	IgM heavy chain variable region [Homo	152	3e-36	U
gi|58221859|gb|AAW68566.1|	anti-tetanus toxoid immunoglobulin...	152	4e-36	U
gi|115394132|gb|ABI97021.1|	anti-Burkholderia mallei scFv antibo	152	4e-36	U
gi|21668738|dbj|BAC01396.1|	immunoglobulin heavy chain VHDJ regi	152	4e-36	U
gi|122892170|gb|ABM67152.1|	immunoglobulin heavy chain variable	152	4e-36	U
gi|5679474|emb|CAB51712.1|	immunoglobulin heavy chain variable r	152	4e-36	U
gi|39939661|gb|AAR32320.1|	immunoglobulin heavy chain variable r	152	4e-36	U
gi|510402|emb|CAA84416.1|	IgM, variable region, rheumatoid fa...	152	4e-36	U
gi|744478|prf||2014394A	Ig, anti-thyroid peroxidase:SUBUNIT=heav	152	4e-36	U
gi|37014261|gb|AAQ87990.1|	immunoglobulin E heavy chain variable	152	4e-36	U
gi|20453027|gb|AAM19762.1|	immunoglobulin heavy chain variable r	152	4e-36	U
gi|45439530|gb|AAS64360.1|	immunoglobulin mu heavy chain variabl	152	4e-36	U
gi|20149023|gb|AAM12759.1|AF492404_1	anti-human interleukin-2 sc	152	4e-36	U
gi|40647142|gb|AAR88377.1|	anti-HIV-1 gp120 immunoglobulin 47e h	152	5e-36	U
gi|106701|pir||PH0957	Ig heavy chain V region (G6+ CLL-BRA) - hu	152	5e-36	
gi|185302|gb|AAB00779.1|	Ig heavy chain	152	5e-36	
gi|34528319|dbj|BAC85484.1|	unnamed protein product [Homo sapien	152	5e-36	UG
gi|37693802|gb|AAQ98912.1|	immunoglobulin gamma light chain v...	152	5e-36	
gi|19848548|gb|AAL17960.1|	immunoglobulin heavy chain variable r	152	5e-36	U

gi|46254205|gb|AAS86072.1|	immunoglobulin heavy chain [Homo sapi	152	6e-36	U
gi|21669929|dbj|BAC01974.1|	immunoglobulin heavy chain VHDJ regi	152	6e-36	U
gi|7385061|gb|AAF61676.1|	immunoglobulin heavy chain variable re	152	6e-36	
gi|106480|pir||A33548	Ig heavy chain V-1 region (NEI) - human	152	6e-36	
gi|118406366|gb|ABK81543.1|	immunoglobulin heavy chain variable	152	6e-36	
gi|39938343|gb|AAR32589.1|	immunoglobulin heavy chain variable r	152	6e-36	U
gi|34595957|gb|AAQ76696.1|	immunoglobulin heavy chain variable r	152	7e-36	
gi|2344916|gb|AAC51688.1|	IgM heavy chain VH1 region precurs...	152	7e-36	
gi|70798055|gb|AAZ08740.1|	immunoglobulin heavy chain variable r	152	7e-36	U
gi|1498538|gb|AAB06416.1|	immunoglobulin heavy chain variable re	152	7e-36	U

Alignments

> ☐ gi|9837148|gb|AAG00448.1| anti-human melanoma single-chain variable fragment antibody G71-1 immunoconjugate [synthetic construct]
Length=501

Score = 167 bits (422), Expect = 2e-40, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 93/119 (78%), Gaps = 9/119 (7%)

Query	2	LEQSGSEVKVPGSSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN	61
Sbjct	25	.V...A...K....V.....A.....S.AI.....I..F.T....QK	84
Query	62	FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT	120
Sbjct	85	..G.....K....A...LSS.....RGG-----D.F.I.....	134

> ☐ gi|87919|pir||S14683 Ig mu chain precursor, membrane-bound (clone 201) - human
gi|33451|emb|CAA34971.1| **UG** unnamed protein product [Homo sapiens]
Length=627

Score = 166 bits (420), Expect = 3e-40, Method: Composition-based stats.
Identities = 87/124 (70%), Positives = 95/124 (76%), Gaps = 5/124 (4%)

Query	2	LEQSGSEVKVPGSSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN	61
Sbjct	23	.V...A...K....V.....A.....S.AI.....I..F.T....QK	82
Query	62	FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRG-----RTFFYSAMDVW	116
Sbjct	83	..G.....A...LSS.....GILGPYSSGWYPNSDYY.YG....	142
Query	117	GQGT	120
Sbjct	143	....	146

> ☐ gi|106898801|gb|ABF83394.1| **U** circulating B cell antibody heavy chain variable region [Homo sapiens]
Length=129

Score = 164 bits (415), Expect = 1e-39, Method: Composition-based stats.
Identities = 89/119 (74%), Positives = 98/119 (82%), Gaps = 1/119 (0%)

Query	2	LEQSGSEVKVPGSSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN	61
Sbjct	6	.V...A...K....V.....N.AI.....P.....I..F.T....QK	65
Query	62	FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT	120
Sbjct	66	..G.....D....A...MSS.....RDA.M-..I..VH..HDL.....	123

> ☐ gi|38382881|gb|AAH62336.1| **UG** IGHG1 protein [Homo sapiens]

Length=470

Score = 164 bits (415), Expect = 1e-39, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 94/119 (78%), Gaps = 7/119 (5%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23 .V...A...K...V.....V...M.....E.I.MF...E..QR 82

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83N.A...LSS.....-----SPAT.D.K.--F.Y..... 134

> [gi|15886932|emb|CAC88723.1](#) **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=122

Score = 162 bits (411), Expect = 4e-39, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 94/119 (78%), Gaps = 1/119 (0%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K...V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKT-SEVTATRGRTFFYSAMDVWGQG 119
Sbjct 64 ..G.....A...LSS.....RDPDIDVVVPA.IDY.YG..... 122

> [gi|93279222|pdb|2DD8|H](#) **S** Chain H, Crystal Structure Of Sars-Cov Spike Receptor-Binding
Domain Complexed With Neutralizing Antibody

[gi|93279898|pdb|2G75|A](#) **S** Chain A, Crystal Structure Of Anti-Sars M396 Antibody

[gi|93279900|pdb|2G75|C](#) **S** Chain C, Crystal Structure Of Anti-Sars M396 Antibody

Length=245

Score = 162 bits (409), Expect = 6e-39, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 96/119 (80%), Gaps = 10/119 (8%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTFSWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4 .Q...A...K...V.....A.....S..I.....L.....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....T.....A...LSS.....RDTVM-----GG..... 112

> [gi|42543658|pdb|1RZI|B](#) **S** Chain B, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543660|pdb|1RZI|D](#) **S** Chain D, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543662|pdb|1RZI|F](#) **S** Chain F, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543664|pdb|1RZI|H](#) **S** Chain H, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543666|pdb|1RZI|J](#) **S** Chain J, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543668|pdb|1RZI|L](#) **S** Chain L, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543670|pdb|1RZI|N](#) **S** Chain N, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

[gi|42543672|pdb|1RZI|P](#) **S** Chain P, Crystal Structure Of Human Anti-Hiv-1 Gp120-Reactive
Antibody 47e Fab

Length=230

Score = 160 bits (404), Expect = 3e-38, Method: Composition-based stats.
Identities = 85/120 (70%), Positives = 95/120 (79%), Gaps = 1/120 (0%)

```

Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4    .L...A...K....V.....A.....S.AI.....I.VF.S....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYS-AMDVWGQGT 120
Sbjct 64   ..G.....A...T...LSS.....F...GG.DGDYLSDP.Y.NHG..... 123

```

> gi|87813|pir|B32274 Ig heavy chain precursor V-I region (EVI-15) - human (fragment)
Length=135

Score = 159 bits (403), Expect = 3e-38, Method: Composition-based stats.
Identities = 82/123 (66%), Positives = 93/123 (75%), Gaps = 4/123 (3%)

```

Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 7    .V...A...K....V.....A.....S.A.....I.FL.TTH..QK 66

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATR---GRTFFYSAMDVWG 117
Sbjct 67   .....T....R.A...LHI.....I....RDQSLNIEVVPLDPNY..DG..... 126

```

```

Query 118  QGT 120
Sbjct 127  ... 129

```

> gi|185151|gb|AAA52828.1| immunoglobulin heavy chain precursor [Homo sapiens]
Length=136

Score = 159 bits (403), Expect = 3e-38, Method: Composition-based stats.
Identities = 82/123 (66%), Positives = 93/123 (75%), Gaps = 4/123 (3%)

```

Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 7    .V...A...K....V.....A.....S.A.....I.FL.TTH..QK 66

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATR---GRTFFYSAMDVWG 117
Sbjct 67   .....T....R.A...LHI.....I....RDQSLNIEVVPLDPNY..DG..... 126

```

```

Query 118  QGT 120
Sbjct 127  ... 129

```

> gi|2344914|gb|AAC51687.1| IgM heavy chain VH1 region precursor [Homo sapiens]
Length=148

Score = 159 bits (402), Expect = 4e-38, Method: Composition-based stats.
Identities = 85/120 (70%), Positives = 95/120 (79%), Gaps = 1/120 (0%)

```

Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAK-TSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83   ..G.....A...LSS.....RDVPDIVVVPAAIYY.YG..... 142

```

> gi|27728677|gb|AAO17821.1| **U** anti-rabies SO57 immunoglobulin heavy chain [Homo sapiens]
Length=476

Score = 159 bits (401), Expect = 5e-38, Method: Composition-based stats.
Identities = 81/120 (67%), Positives = 94/120 (78%), Gaps = 3/120 (2%)

```

Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....NR..VN.....I..F.T....QR 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSA-MDVWGQGT 120
Sbjct 83   ..G.L.....A...LSS...D.....F..R--.NLDNS.TYYYF.GWF.P..... 140

```


> gi|21668772|dbj|BAC01413.1| **U** immunoglobulin heavy chain VHDJ region [Homo sapiens]
Length=125

Score = 159 bits (401), Expect = 5e-38, Method: Composition-based stats.
Identities = 87/119 (73%), Positives = 95/119 (79%), Gaps = 3/119 (2%)

```
Query 2   LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4   .Q...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62  FQDRVTTITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64  ..G.....A...LSS.....RDPG.AVAG.---Y.YG..... 119
```

> gi|3170859|gb|AAC18234.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=147

Score = 158 bits (400), Expect = 7e-38, Method: Composition-based stats.
Identities = 88/119 (73%), Positives = 95/119 (79%), Gaps = 1/119 (0%)

```
Query 2   LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 23  .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62  FQDRVTTITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83  ..G.....A...LSS.....SFGSPA.IE..YYY.-G..... 140
```

> gi|122892236|gb|ABM67185.1| immunoglobulin heavy chain variable region [Homo sapiens]
Length=127

Score = 158 bits (399), Expect = 9e-38, Method: Composition-based stats.
Identities = 82/119 (68%), Positives = 96/119 (80%), Gaps = 3/119 (2%)

```
Query 2   LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 6   .VE..A...K....V.....A.....S.SIN.....I.MF.P....H. 65

Query 62  FQDRVTTITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 66  ..G.....R.A..DLSS...D.....RARVIL---A.YY.Y...A.... 121
```

> gi|118405991|gb|ABK81358.1| immunoglobulin heavy chain variable region [Homo sapiens]
Length=122

Score = 157 bits (398), Expect = 1e-37, Method: Composition-based stats.
Identities = 81/119 (68%), Positives = 90/119 (75%), Gaps = 0/119 (0%)

```
Query 2   LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4   .V...A...K....V.....A..DIL.SFVI.....N..F.TP...QK 63

Query 62  FQDRVTTITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64  ..G.....A...LSS.....RPQTTVT.PHHHY.YG..... 122
```

> gi|45504721|gb|AAS66904.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=129

Score = 157 bits (398), Expect = 1e-37, Method: Composition-based stats.
Identities = 86/120 (71%), Positives = 96/120 (80%), Gaps = 1/120 (0%)

```
Query 2   LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4   .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62  FQDRVTTITADESTSTVYMEVRRRLRSED TAVYYCAKTSE-VTATRGRTFFYSAMDVWGQGT 120
```

Sbjct 64 ..G.....A...LSS.....RGADI.VVPAAMGY.YG..... 123

> gi|45504713|gb|AAS66900.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=129

Score = 157 bits (398), Expect = 1e-37, Method: Composition-based stats.
Identities = 86/120 (71%), Positives = 96/120 (80%), Gaps = 1/120 (0%)

```
Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4    .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSE-VTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   ..G.....A...LSS.....RGGDI.VVPAAMSY.YG..... 123
```

> gi|2344944|gb|AAC51702.1| IgM heavy chain VH1 region precursor [Homo sapiens]
Length=152

Score = 157 bits (397), Expect = 1e-37, Method: Composition-based stats.
Identities = 86/124 (69%), Positives = 95/124 (76%), Gaps = 5/124 (4%)

```
Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATR-----GR TFFYSAMDVW 116
Sbjct 83   ..G.....A...LSS.....RDAAHNPP.EWQQLDFNY.YG.... 142

Query 117  GQGT 120
Sbjct 143  .... 146
```

> gi|29892991|emb|CAD87747.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=130

Score = 157 bits (397), Expect = 2e-37, Method: Composition-based stats.
Identities = 86/120 (71%), Positives = 95/120 (79%), Gaps = 1/120 (0%)

```
Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4    .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSE-VTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   ..G.....A...LSS.....RGGDI.VVPAAMRY.YG..... 123
```

> gi|2344934|gb|AAC51697.1| IgM heavy chain VH1 region precursor [Homo sapiens]
Length=146

Score = 157 bits (396), Expect = 2e-37, Method: Composition-based stats.
Identities = 87/119 (73%), Positives = 95/119 (79%), Gaps = 1/119 (0%)

```
Query 2    LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83   ..G.....A...LSS.....R-.M.QGVINVL.YG..... 140
```

> gi|4468364|emb|CAB38066.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=118

Score = 156 bits (395), Expect = 3e-37, Method: Composition-based stats.
Identities = 87/120 (72%), Positives = 96/120 (80%), Gaps = 11/120 (9%)

```

Query 1  LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYAR 60
Sbjct 4  .....A...K....V.....A.....S.AI.....R.I..L.....Q 63

Query 61  NFQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64  K..G.....K....A...LSS.....R-----E...A-----I..... 112

```

> gi|15886988|emb|CAC88751.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=130

Score = 156 bits (395), Expect = 3e-37, Method: Composition-based stats.
Identities = 86/126 (68%), Positives = 95/126 (75%), Gaps = 7/126 (5%)

```

Query 2  LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4  .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62  FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATR-----GR TFFYSAMD 114
Sbjct 64  ..G.....A...LSS.....RDFPGGQL.FLEWSILTKHY.YG.. 123

Query 115  VWGQGT 120
Sbjct 124  ..... 129

```

> gi|118406380|gb|ABK81550.1| immunoglobulin heavy chain variable region [Homo sapiens]
Length=132

Score = 156 bits (394), Expect = 3e-37, Method: Composition-based stats.
Identities = 87/122 (71%), Positives = 95/122 (77%), Gaps = 4/122 (3%)

```

Query 2  LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4  .V...A...R....V.....A.....S.A.....L..FVTT...QK 63

Query 62  FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRT---FFYSAMDVWGQ 118
Sbjct 64  ..G.I..M.....T...LSS.....I....G-K.A..AE...DHYLY.YG..... 122

Query 119  GT 120
Sbjct 123  .. 124

```

> gi|21670665|dbj|BAC02342.1| **U** immunoglobulin heavy chain VHDJ region [Homo sapiens]
Length=128

Score = 156 bits (394), Expect = 4e-37, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 93/119 (78%), Gaps = 0/119 (0%)

```

Query 2  LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4  .L..AA...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62  FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64  ..G.....A...LSS.....RDVYDIL.GYSLYY.YG..... 122

```

> gi|29892983|emb|CAD87743.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=125

Score = 155 bits (393), Expect = 4e-37, Method: Composition-based stats.
Identities = 86/121 (71%), Positives = 94/121 (77%), Gaps = 2/121 (1%)

```

Query 2  LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGLEWMGGITPIIGIANYARN 61
Sbjct 4  .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62  FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKT--SEVTATRGRTFFYSAMDVWGQ 119
Sbjct 64  ..G.....A...LSS.....RVDGAM.QGVIPLGPY.YG..... 123

```

Query 120 T 120
Sbjct 124 . 124

> gi|106703|pir||PH0958 Ig heavy chain V region (G6+ CLL-HUR) - human (fragment)
Length=122

Score = 155 bits (392), Expect = 5e-37, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 92/119 (77%), Gaps = 6/119 (5%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPQG LEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....RVPN-----PL..AVG..... 116

> gi|20453025|gb|AAM19761.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=130

Score = 155 bits (392), Expect = 5e-37, Method: Composition-based stats.
Identities = 86/128 (67%), Positives = 94/128 (73%), Gaps = 9/128 (7%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPQG LEWMGGITPIIGIANYARN 61
Sbjct 1 .V...A...K....V.....A.....S.AI.....I..F.T....QK 60

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKT-----SEVTATRGRTFFYSA 112
Sbjct 61 ..G.....A...LSS.....NNQGLLDYDFW.GYSHRLPGFYY.YG 120

Query 113 MDVWGQGT 120
Sbjct 121 128

> gi|15886946|emb|CAC88730.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=124

Score = 155 bits (392), Expect = 5e-37, Method: Composition-based stats.
Identities = 85/121 (70%), Positives = 93/121 (76%), Gaps = 3/121 (2%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPQG LEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVT---ATRGRTFFYSAMDVWGQ 118
Sbjct 64 ..G.....A...LSS.....SPG.PNDFWSGSNYRY.YG..... 123

Query 119 G 119
Sbjct 124 . 124

> gi|70798211|gb|AAZ08818.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=126

Score = 155 bits (392), Expect = 5e-37, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 95/119 (79%), Gaps = 2/119 (1%)

Query 2 LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPQG LEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K....V.....A.....S..I.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....RE.TIFGV--VNWVFD.F.I..... 120

> gi|15886958|emb|CAC88736.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=122

Score = 155 bits (392), Expect = 5e-37, Method: Composition-based stats.
Identities = 84/119 (70%), Positives = 92/119 (77%), Gaps = 0/119 (0%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4    .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   ..G.....A...LSS.....RGGDYDYVW.SYRPND.F.I..... 122
```

> [gi|106897089|gb|ABF83204.1|](#) **U** circulating B cell antibody heavy chain variable region [Homo sapiens]
Length=127

Score = 155 bits (392), Expect = 6e-37, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 96/119 (80%), Gaps = 3/119 (2%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 6    .V...A...K....V.....A.....S..I.....R.I..L.....QK 65

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 66   ..G.....K....A...LSS.....RDL...TFGPK---.NWF.P..... 121
```

> [gi|2344942|gb|AAC51701.1|](#) IgM heavy chain VH1 region precursor [Homo sapiens]
Length=141

Score = 155 bits (392), Expect = 6e-37, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 92/119 (77%), Gaps = 6/119 (5%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83   ..G.....A...LSS.....RVPN-----PL..AVG..... 135
```

> [gi|3170785|gb|AAC18197.1|](#) **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=146

Score = 155 bits (392), Expect = 6e-37, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 95/119 (79%), Gaps = 2/119 (1%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83   ..G.....K....A...LSS.....RGYDFVGSP.H--Y.YG..... 139
```

> [gi|27261427|gb|AAN85866.1|](#) anti-keratin monoclonal antibody [synthetic construct]
[gi|30523031|gb|AAP31872.1|](#) anti-keratin immunoglobulin heavy chain variable region [synthetic construct]
Length=123

Score = 155 bits (392), Expect = 6e-37, Method: Composition-based stats.
Identities = 85/120 (70%), Positives = 96/120 (80%), Gaps = 6/120 (5%)

```
Query 1    LLEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYAR 60
Sbjct 4     .....A...K....V.....A.....S.AI.....R.V..L.....Q 63

Query 61   NFQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   K..G.....K....A...LSS.....R-----A.RHWVREASL..... 117
```

> gi|4456566|emb|CAB37165.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=127

Score = 155 bits (391), Expect = 7e-37, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 95/119 (79%), Gaps = 1/119 (0%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4    .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   ..G.....A...LSS.....R-AM.RGVIHLDDYY.YY.....K.. 121
```

> gi|70798436|gb|AAZ08930.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=122

Score = 155 bits (391), Expect = 7e-37, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 92/119 (77%), Gaps = 0/119 (0%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 1    .V...A...K....V.....A.....S.AI.....I..F.T....QK 60

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 61   ..G.....A...LSS.....VGRGYGNPATFYFY.YG..... 119
```

> gi|15886984|emb|CAC88749.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=125

Score = 155 bits (391), Expect = 7e-37, Method: Composition-based stats.
Identities = 85/121 (70%), Positives = 94/121 (77%), Gaps = 5/121 (4%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4    .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTF--FYSAMDVWGQG 119
Sbjct 64   ..G.....A...LSS.....R---.PPS.NIVLMVYDD.F.I.... 120

Query 120   T 120
Sbjct 121   . 121
```

> gi|2344928|gb|AAC51694.1| IgM heavy chain VH1 region precursor [Homo sapiens]
Length=150

Score = 155 bits (391), Expect = 8e-37, Method: Composition-based stats.
Identities = 86/122 (70%), Positives = 96/122 (78%), Gaps = 3/122 (2%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRG---RTFFYSAMDVWGQ 118
Sbjct 83   ..G.....A...LSS.....RGTKGITIF.VVINYYY.YG..... 142

Query 119   GT 120
Sbjct 143   .. 144
```

> gi|46255803|gb|AAH69016.1| **UG**IGHG1 protein [Homo sapiens]
Length=476

Score = 154 bits (390), Expect = 9e-37, Method: Composition-based stats.

Identities = 80/123 (65%), Positives = 92/123 (74%), Gaps = 9/123 (7%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A.....D.PI.....I..F.AP...QK 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSA----MDVWG 117
Sbjct 83   ..G.....TE...N.A...LSS.....R-----P.NAFYYE.SGYLYF.L.. 137

Query 118   QGT 120
Sbjct 138   R.. 140
```

> gi|3170841|gb|AAC18225.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=129

Score = 154 bits (390), Expect = 1e-36, Method: Composition-based stats.
Identities = 82/119 (68%), Positives = 93/119 (78%), Gaps = 0/119 (0%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4     .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64   ..G.....K....A...LSS.....RQADCSGGSCYDI.PNWF.P..... 122
```

> gi|1082511|pir||S46394 Ig heavy chain V region - human
gi|1335147|emb|CAA83486.1| Immunoglobulin heavy chain variable region (VH-50) [Homo sapiens]
Length=132

Score = 154 bits (390), Expect = 1e-36, Method: Composition-based stats.
Identities = 86/123 (69%), Positives = 95/123 (77%), Gaps = 4/123 (3%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4     .V...A...K....V.....A.....S.AI.....I..F.T..H.QK 63

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRG----RTFFYSAMDVWG 117
Sbjct 64   ..G.....A...LSS.....R.QLPA.DT.ILEWLPSY.YY..... 123

Query 118   QGT 120
Sbjct 124   K.. 126
```

> gi|45595687|gb|AAH67091.1| **UG** IGHG1 protein [Homo sapiens]
Length=475

Score = 154 bits (390), Expect = 1e-36, Method: Composition-based stats.
Identities = 77/119 (64%), Positives = 89/119 (74%), Gaps = 2/119 (1%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 23   .V...A...K....V.....A...D..TN.AI.....I..F.TTD..Q. 82

Query 62   FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83   .....NLFSL.INN...K...M...VRE.FT.VFGVP.LH.--L.S..... 139
```

> gi|5679470|emb|CAB51710.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=131

Score = 154 bits (389), Expect = 1e-36, Method: Composition-based stats.
Identities = 87/119 (73%), Positives = 95/119 (79%), Gaps = 1/119 (0%)

```
Query 2    LEQSGSEVKVP GSSLKVSCKTSGGTFSTYTF SWVRQAPGQGLEWMGGITPIIGIANYARN 61
Sbjct 4     .V...A...K....V.....A.....S.AI.....I..F.T....QK 63
```

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....GPPD-..MVTLFYY.YG..... 121

> gi|14573203|gb|AAK67990.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=134

Score = 154 bits (389), Expect = 1e-36, Method: Composition-based stats.
Identities = 83/125 (66%), Positives = 96/125 (76%), Gaps = 5/125 (4%)

Query 1 LLEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYAR 60
Sbjct 4A...K....V.....A.....NKHAI.....R.ITMFDV....Q 63

Query 61 NFQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTA-----TRGRTFFYSAMDV 115
Sbjct 64 K..G.....K....A...LSN.....RVERAAEAYYYRSG.Y.YY..P... 123

Query 116 WGQGT 120
Sbjct 124 128

> gi|15886972|emb|CAC88743.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=125

Score = 154 bits (389), Expect = 1e-36, Method: Composition-based stats.
Identities = 84/122 (68%), Positives = 93/122 (76%), Gaps = 3/122 (2%)

Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFF--YSAMDVWGQ 118
Sbjct 64 ..G.....A...LSS.....REAVRITIF.VVIIPRCT.F.I... 123

Query 119 GT 120
Sbjct 124 .. 125

> gi|87239718|emb|CAJ76653.1| anti-BINOL ScFv antibody [synthetic construct]
Length=249

Score = 154 bits (389), Expect = 1e-36, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 92/119 (77%), Gaps = 8/119 (6%)

Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 4 .V...A...K....V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....-----S..PYSDTLK..... 114

> gi|185325|gb|AAB00782.1| Ig heavy chain
Length=146

Score = 154 bits (389), Expect = 1e-36, Method: Composition-based stats.
Identities = 86/119 (72%), Positives = 95/119 (79%), Gaps = 1/119 (0%)

Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANYARN 61
Sbjct 23 .V...A...K....V.....A.....S.AI.....I..F.T....QK 82

Query 62 FQDRVITITADESTSTVYMEVRRRLRSED TAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 83 ..G.....A...LSS.....REV-.GCSSTSCYY.YG..... 140

> gi|106478|pir|C33548 Ig heavy chain V-1 region (783) - human
Length=133

Score = 154 bits (388), Expect = 2e-36, Method: Composition-based stats.
Identities = 87/124 (70%), Positives = 95/124 (76%), Gaps = 5/124 (4%)

```
Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANIYARN 61
Sbjct 4 .V...A...K...V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRG-----RTFFYSAMDVW 116
Sbjct 64 ..G.....A...LSS.....GILGPYSSGWYPNSDYY.YG.... 123

Query 117 GQGT 120
Sbjct 124 .... 127
```

> gi|60616488|gb|AAX31272.1| **U** immunoglobulin heavy chain variable region [Homo sapiens]
Length=122

Score = 154 bits (388), Expect = 2e-36, Method: Composition-based stats.
Identities = 84/119 (70%), Positives = 93/119 (78%), Gaps = 2/119 (1%)

```
Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANIYARN 61
Sbjct 4 .V...A...K...V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....R--DPVDCS.GSCYL.WF.P..... 120
```

> gi|106479|pir||B33548 Ig heavy chain V-1 region (AND) - human
Length=126

Score = 153 bits (387), Expect = 2e-36, Method: Composition-based stats.
Identities = 85/119 (71%), Positives = 94/119 (78%), Gaps = 2/119 (1%)

```
Query 2 LEQSGSEVKVPGSSLKVSCKTSGGTFSTYTFSWVRQAPQGQLEWMGGITPIIGIANIYARN 61
Sbjct 4 .V...A...K...V.....A.....S.AI.....I..F.T....QK 63

Query 62 FQDRVITITADESTSTVYMEVRRRLRSEDTAVYYCAKTSEVTATRGRTFFYSAMDVWGQGT 120
Sbjct 64 ..G.....A...LSS.....RV.IFGVV--QHYY.YY.....L.. 120
```

Get selected sequences

Select all

Deselect all

Distance tree of results

Database: All non-redundant GenBank CDS translations+PDB+SwissProt+PIR+PRF excluding environmental samples

Posted date: Feb 26, 2007 5:55 PM

Number of letters in database: 1,607,774,624

Number of sequences in database: 4,657,147

Lambda K H
0.316 0.129 0.387

Gapped
Lambda K H
0.267 0.0410 0.140

Matrix: BLOSUM62

Gap Penalties: Existence: 11, Extension: 1

Number of Sequences: 4657147

Number of Hits to DB: 37426471

Number of extensions: 1361095

Number of successful extensions: 3017

Number of sequences better than 10: 4

Number of HSP's better than 10 without gapping: 0

Number of HSP's gapped: 3064

Number of HSP's successfully gapped: 4

Length of query: 120

Length of database: 1607774624
Length adjustment: 87
Effective length of query: 33
Effective length of database: 1202602835
Effective search space: 39685893555
Effective search space used: 39685893555
T: 11
A: 40
X1: 16 (7.3 bits)
X2: 38 (14.6 bits)
X3: 64 (24.7 bits)
S1: 41 (20.4 bits)
S2: 71 (32.0 bits)